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(19) (CA) **APPLICATION FOR CANADIAN PATENT** (12)

(54) Battery Latch for a Communication Device

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(57) 8 Claims

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Abstract of the Disclosure

A battery (100) includes a latch (106) for easy attachment to a radio (402). Engagement of the battery (100) to the radio is accomplished via matching a plurality of retaining rails (110) via notches (112) with a plurality of opposing and complementary retaining rails on the radio (402). A simple sliding motion locks the latch (106) to the radio (402). Disengagement requires little force as the latch (106) is depressed in the same direction as the battery (100) is slid down. The battery comes to a stop when an alignment of the notches (112) with the radio retaining rails has taken place. An effortless lift separates the battery (100) from the radio (402).

Claims

1. A battery package for attaching to a radio and providing power thereto, the battery package comprising:

a housing, including:

a plurality of retaining rails to match a plurality of opposing and complimentary retaining rails on the radio in order to allow the battery package to slide onto the radio;

at least one battery cell located in the housing;

at least one battery contacts for providing an electrical connection from the at least one cell to the radio;

a cover for coupling to the housing and providing a cover therefor, the cover including:

a flexible latch portion providing for the locking of the battery package to the radio, the latch having a finger grip portion for allowing the battery package to slide away from the radio in the same direction that the latch is depressed; and

a stop bar for preventing excessive movement in the latch in order to prevent damage thereto.

2. The battery package of claim 1, wherein the housing includes a plastic housing.

3. The battery package of claim 1, wherein the cover includes a plastic housing.

4. The battery package of claim 3, wherein the cover includes a molded plastic housing and the latch is an integral part thereto.

5. The battery package of claim 1, wherein the cover, the latch, and the stop bar are molded in a single shot.

6. A battery package for attaching to a radio and providing power thereto, the radio having a radio housing, the battery package comprising:

a housing having a plurality of retaining rails to match a plurality of opposing and complimentary retaining rails on the radio;

at least one battery cell located in the battery housing;

battery contacts;

a cover for covering the at least one battery cell, the cover including:

a flexible latch portion providing for the locking of the battery package to the radio without using a spring, the latch having a finger grip portion for allowing the depression of the latch to be commensurate with the sliding of the battery package away from the radio; and

a plurality of notches corresponding with the radio retaining rails in order to allow the battery package to engage thereto and slide upward until the latch locks the battery package to the radio.

7. The battery package of claim 6, wherein the battery housing includes a slot to accommodate the latch.

8. A radio communication device, comprising:
a radio housing having a plurality of retaining rails;
a receiver located in the housing for receiving a radio frequency signal;
a battery package to be attached to the radio communication device for powering up the receiver, the battery package comprising:
a battery housing having a plurality of retaining rails to match the plurality of opposing and complimentary retaining rails on the radio;
at least one battery cell located in the battery housing;
at least two battery contacts for electrically connecting the at least one battery cell to the receiver; and
a battery cover for covering the battery housing, the battery cover including:
a latch portion flexibly attached thereto for allowing the battery package to be removed from the radio housing in the same direction as the latch is depressed; and
a protection bar for limiting the movement of the latch in order to prevent damage thereto.

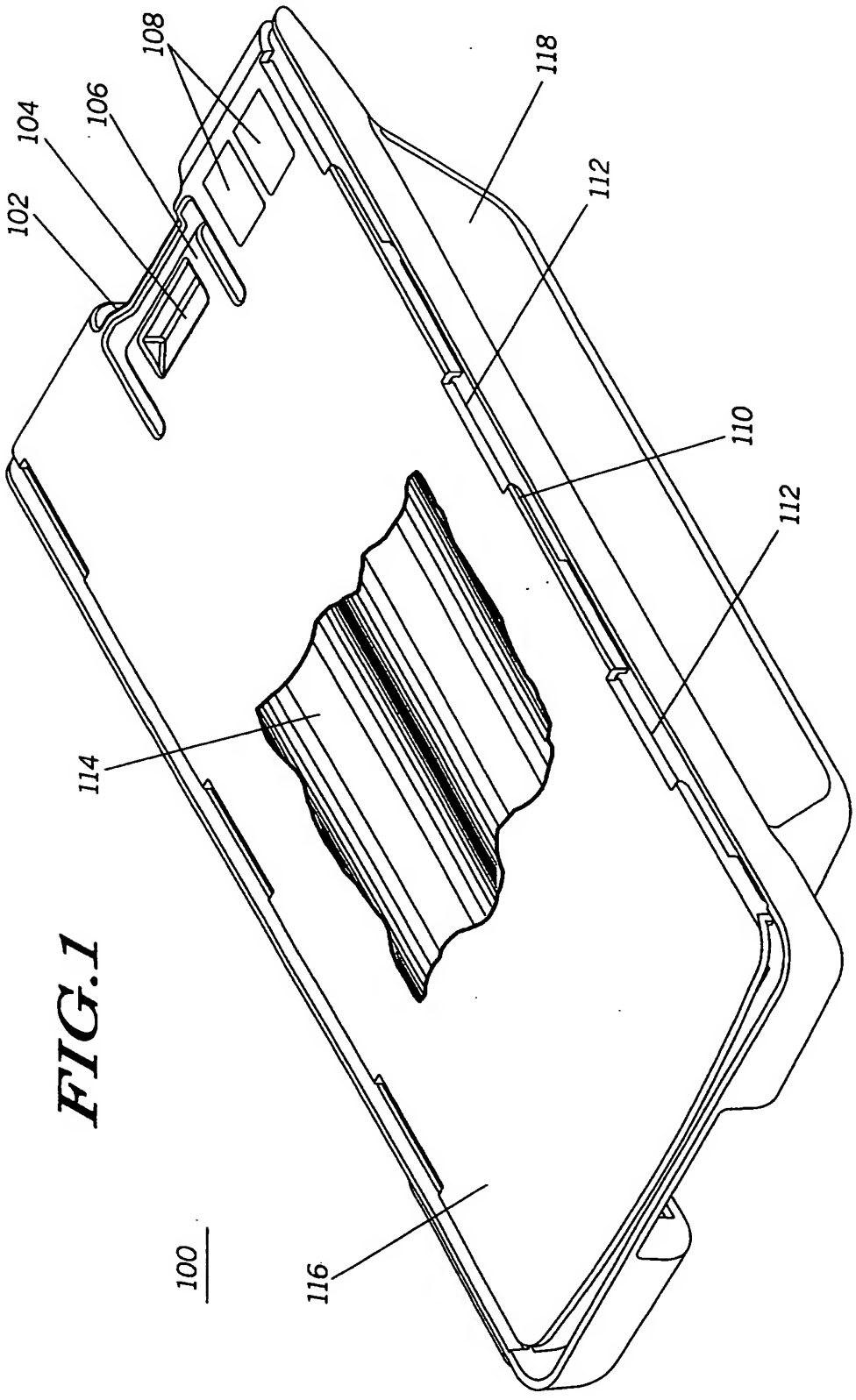
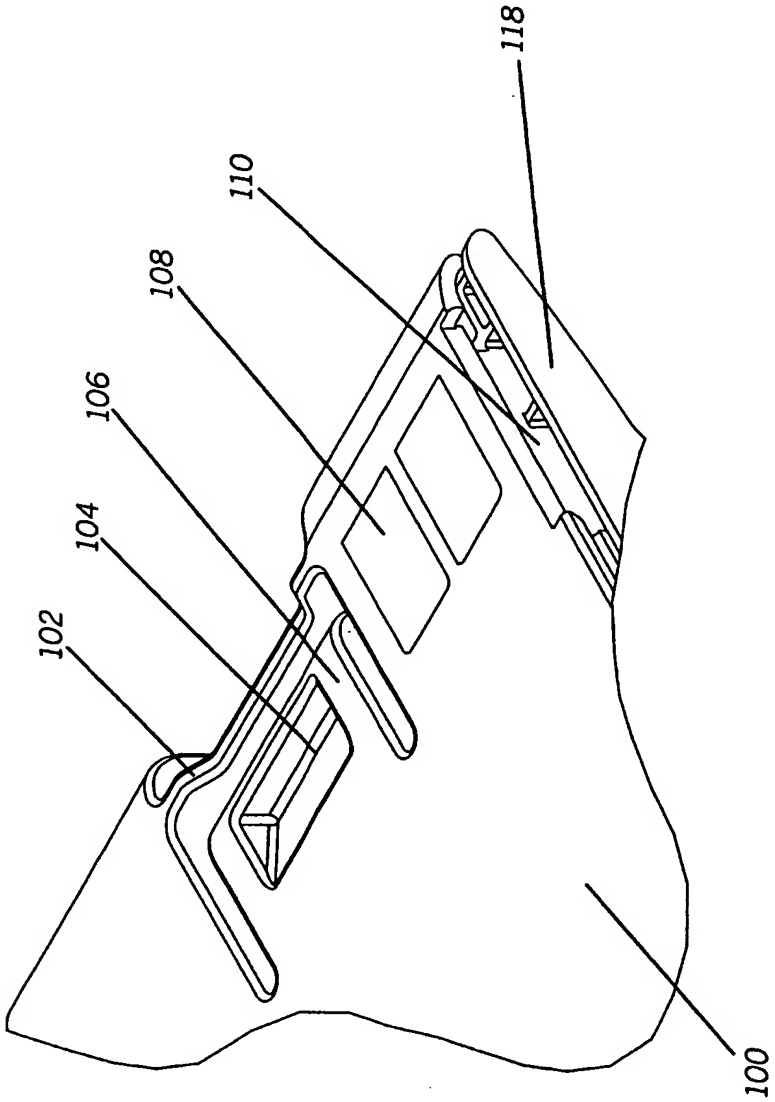


FIG.1

FIG.2



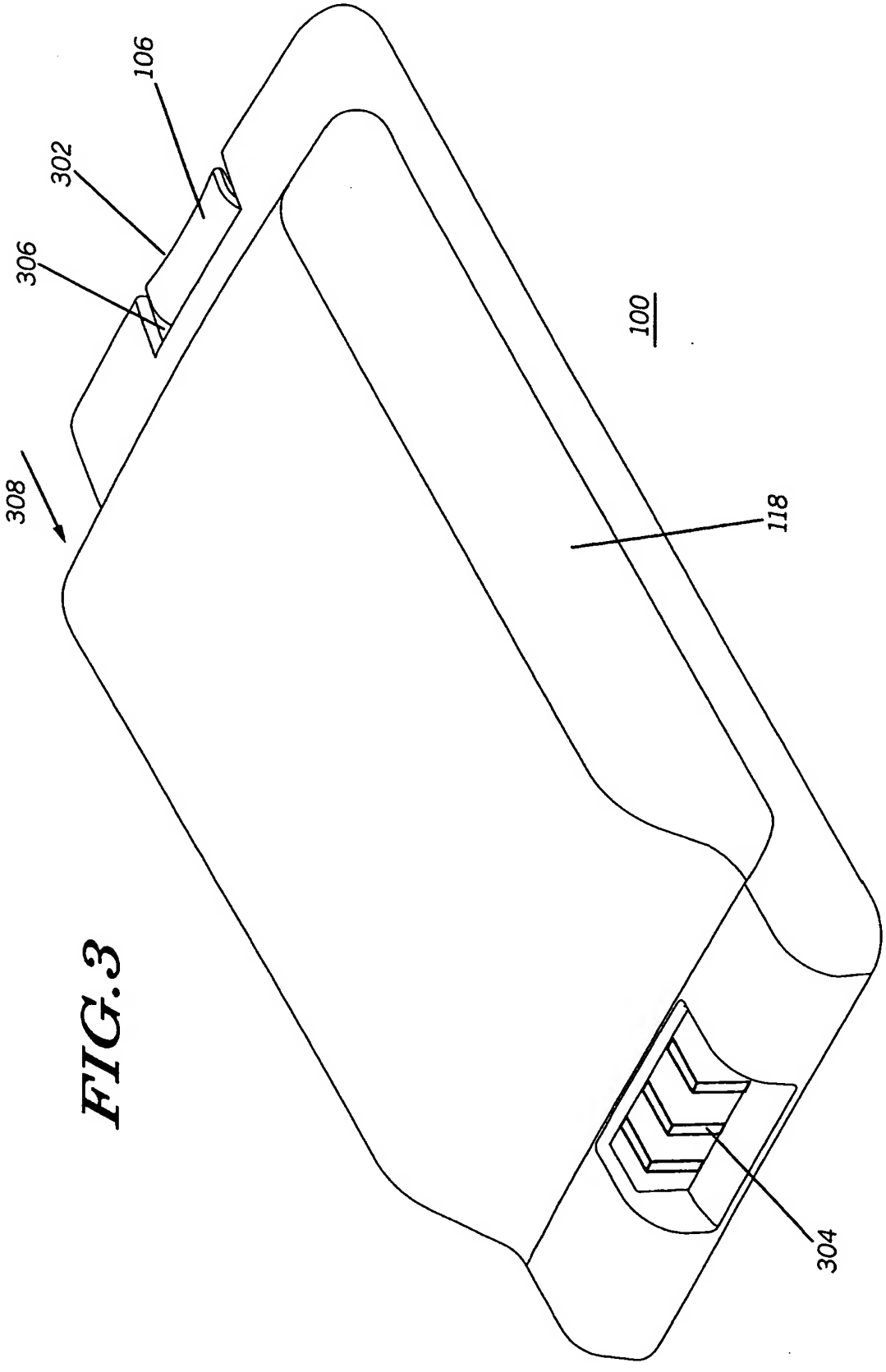


FIG. 3

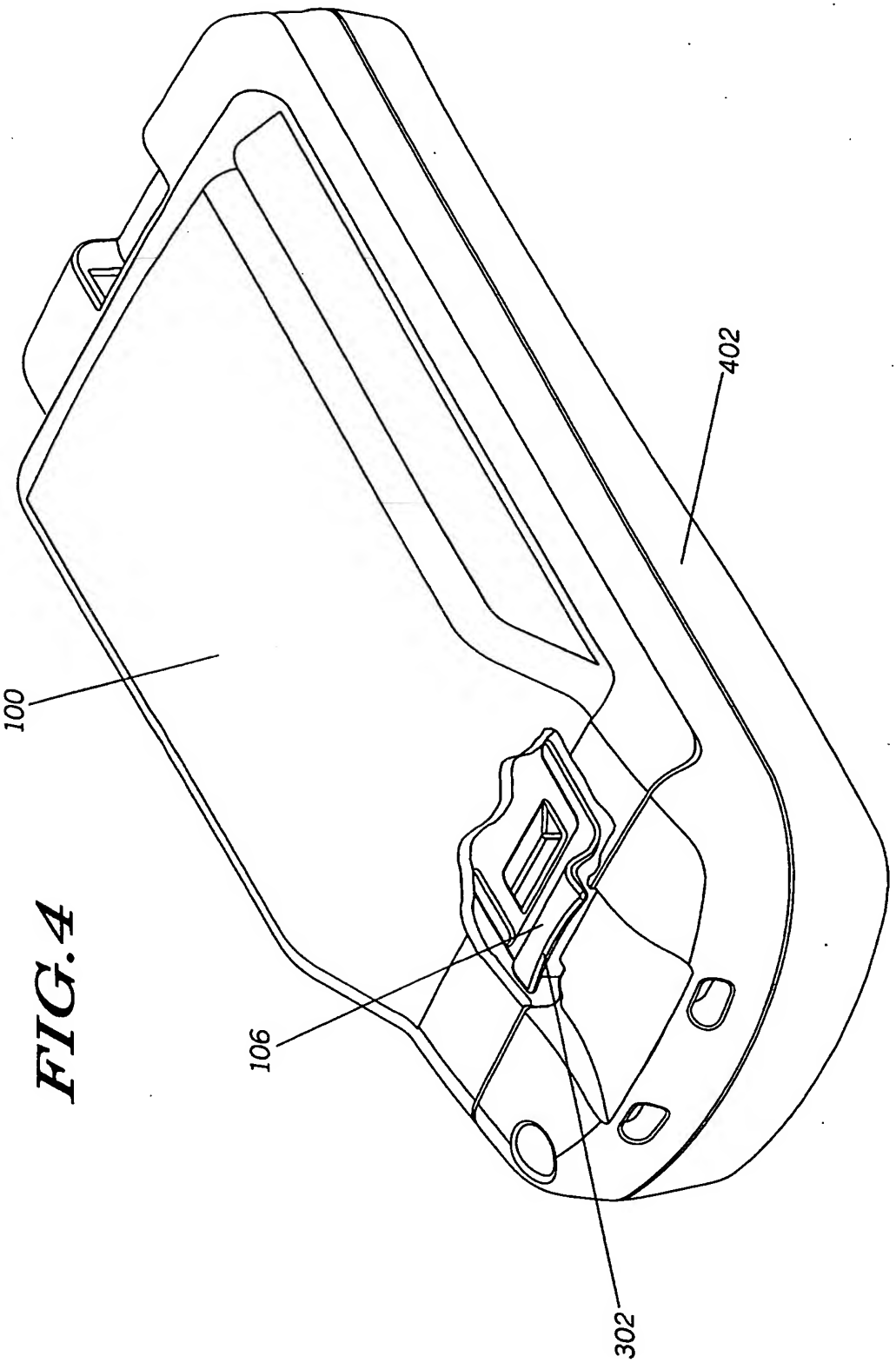


FIG. 4